Sea Viking 04

AGENDA

- Campaign Assumptions
- CMC Guidance
- Campaign Objectives
- Organization
- Process Integration
- Naval Concept and Capabilities
- Naval / Joint Integration
- MEB Options

Campaign Assumptions

- The baseline 2015 MEB provides an organization and capability sets for further experimentation.
- The Joint Force Commander will establish functional components, with Navy and Marine Corps forces operating within a JFMCC.
- Marine forces conduct forcible entry in accordance with future concepts.
- SOF forces integrate with seabased Naval forces.
- Common Operational Picture (COP) distributed throughout the force.
- 2015 seabased MEBs operate from gray and black bottoms
  - Amphibious ships and connectors for the seabase:

    LHD, LPD-17, LSD-41, LCAC SLEP; LCU(R), HSV, LCS; & LHA(Plug+).
  - The squadron of MPS possesses the capabilities in the future MPF MNS.

CMC Guidance

- Experimentation should inform, (iterative process)
  - Produce a clear “execution matrix” linking objectives, activities, tasks, resources, timing, etc.
- Naval experimentation in a joint context
  - Leverage external agencies and organizations
  - Integrate Joint and other Services/SOF
- Concept and capabilities driven
  - Baseline 2015 MEB startpoint should not be viewed as restrictive– unconstrained thinking!
- Capitalize on OEF/OIF lessons learned
- Provide hard data to help inform planning and programming decisions
- Press the envelope with respect to innovation and transformation
  - Find what doesn’t work / Failure is acceptable

CMC Guidance

- Main Effort: Assess potential ESG and MEB capability sets
  - Organizational flexibility / scalability
  - Assess innovative TTPs for the 2015 Seabased MEB in a forcible entry scenario as the leading element of a JTF

- Supporting Efforts:

  - Examine C2 & organizational relationships
    - Break out C2 from C4ISR
    - Examine Reach-back
    - Assess command relationships between the ESG, MEB, JFMCC, SJTFHQ, etc.

  - Assess the desired capability sets for the:
    - 2015 Seabase; 2015 “Surge” capability; and 2015 sustainment of forces ashore

  - Assess the proper mix of amphibs, MPF (F), and connectors

Campaign Objectives

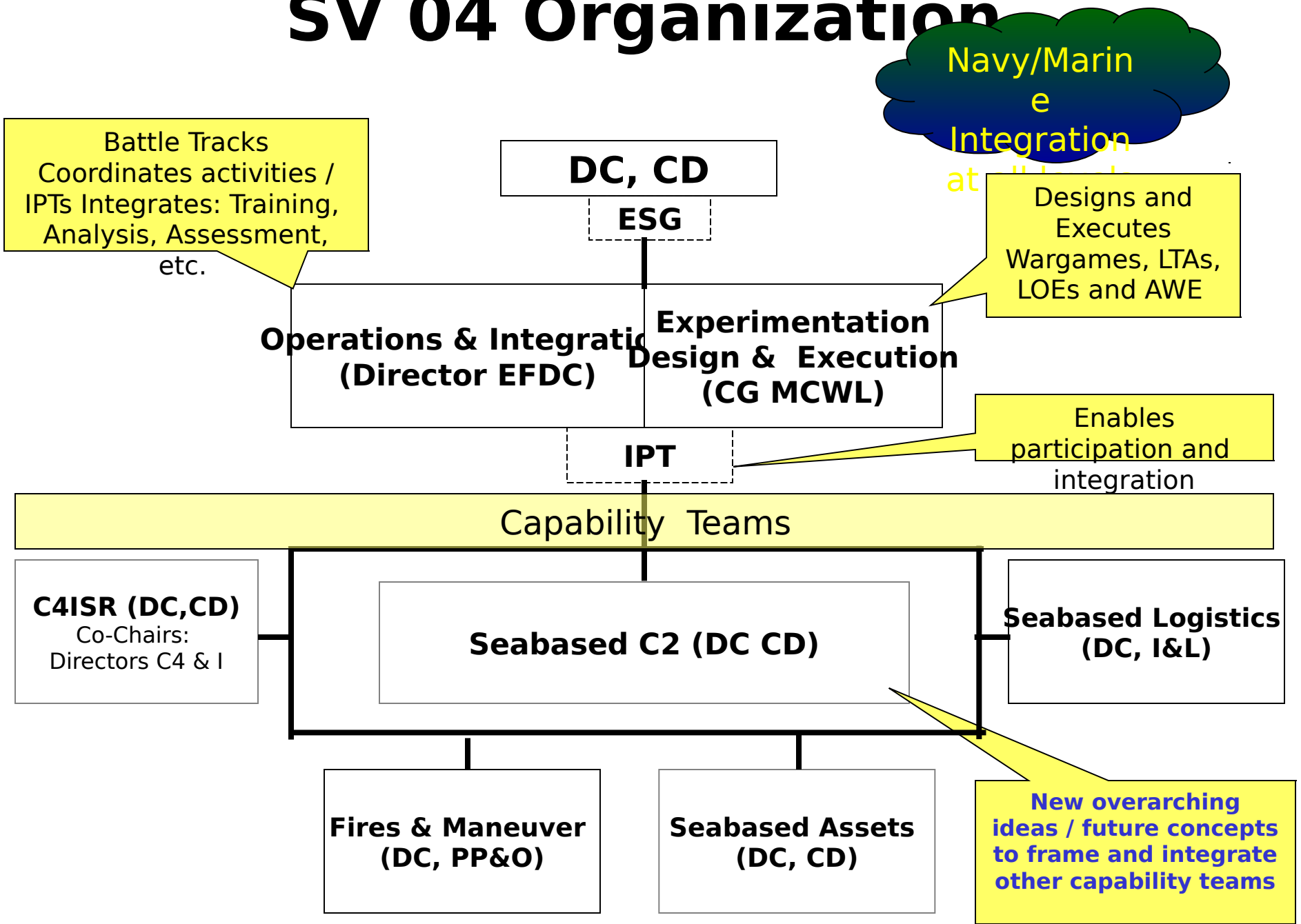
- Assess DOTMLPF recommendations associated with:
  - Composition & employment of 2015 MEB and ESG capability sets
  - Proposed systems mixes that include:
    - Sea-based and ground indirect fires.
    - ITV/FCS/MEFFV, EFSS, EFV/AAV RAM RS
  - Capabilities needed to conduct a MEB level vertical assault in the context of a 2015 OMFTS operation.

- Develop a Naval CONOPS for C2 of seabased operations as part of a joint task force operation.
  - Assess command relationships / architectures between the ESG, MEB, JFMCC, SJTFHQ, etc.
  - Develop and assess a MEB C2 architecture that enables **EMW** and also integrates with emerging joint (component and JTF) C2 systems.
  - Assess ISR capabilities required to support **EMW.** (e.g. intel reach back, Joint ISR integration, etc)

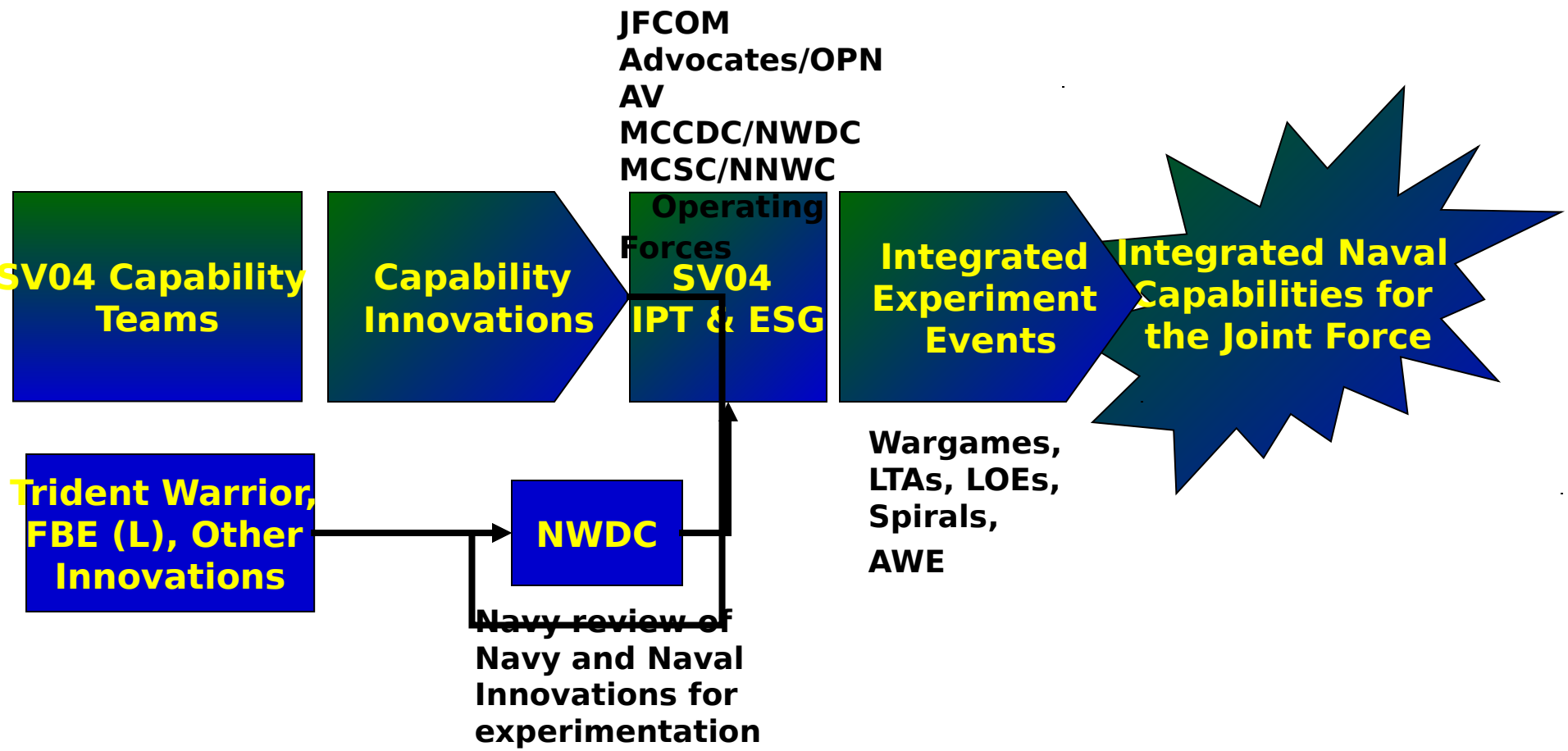
Campaign Objectives

- Provide CMC with information needed to enable decisions leading to achieve 2015 transformation goals.
  - Appropriate mix of platforms and connectors within the Seabase.
  - Assess proposals that inform sustainment of a seabased MEB and selected joint forces.
  - Assess surrogate and prototype equipment that address challenges of the 2015 MEB with the potential for rapid acquisition or interim operational capabilities in the areas of:
    - Over the horizon and on the move communications
    - Mobile COCs
    - Friendly force tracking
    - Distributed collaborative planning

SV 04 Organization



Process Integration

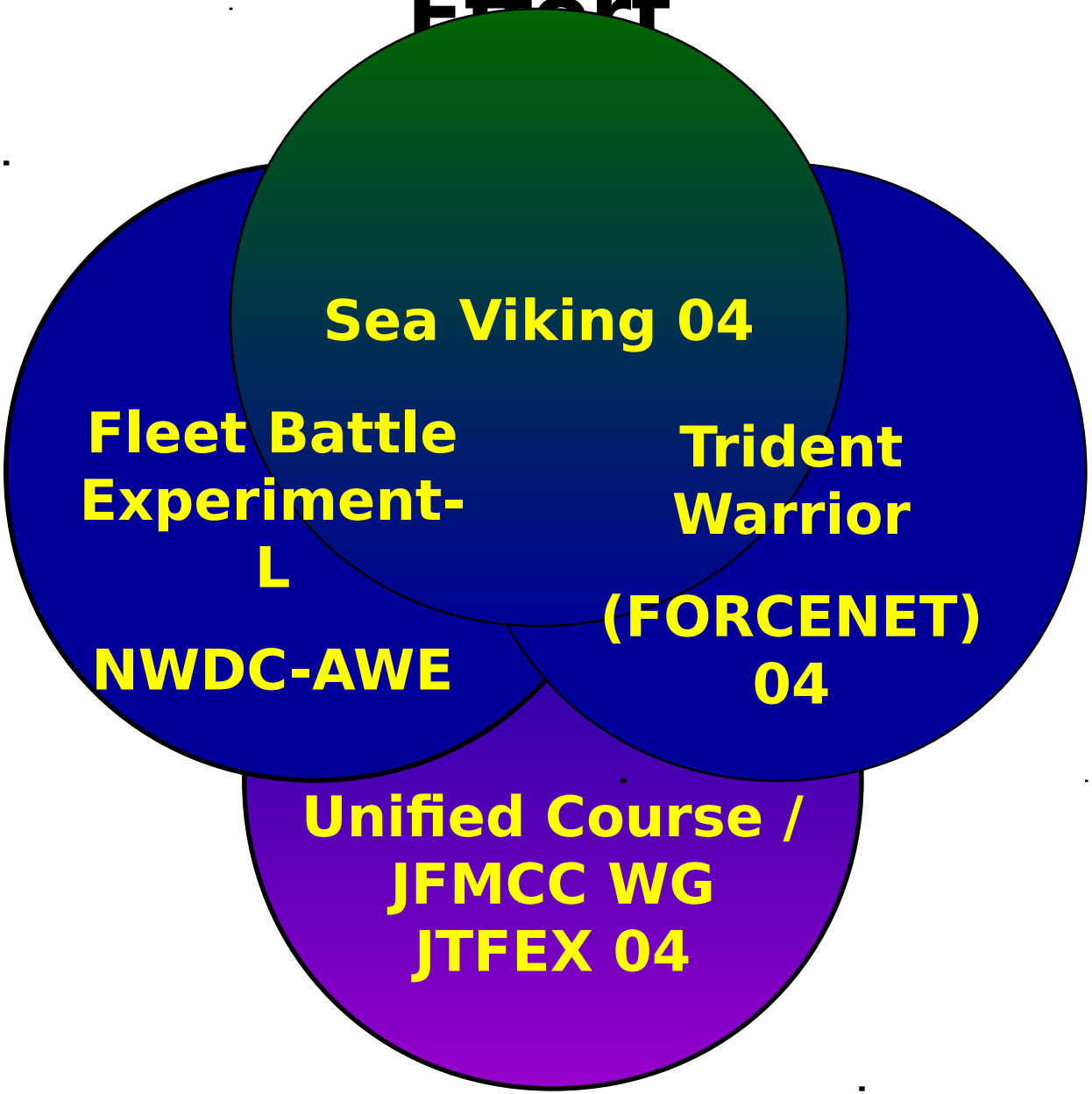


Naval Concept and Capabilities

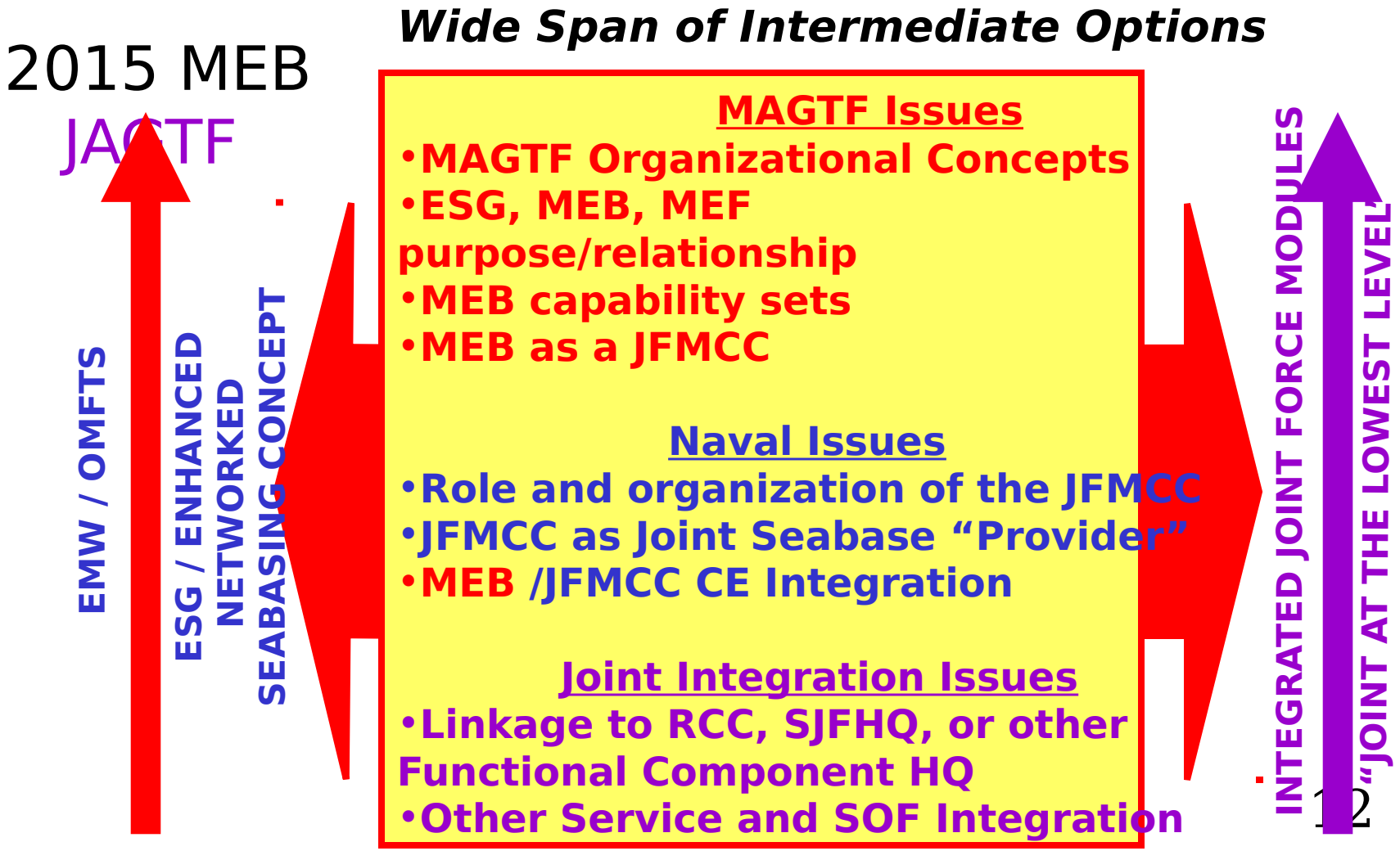
- ***Concept*** for Naval C2
  - Command Relationships
  - Integrated staffs, planning and execution
- ***CONOPS*** for Seabased Force
  - ESF, MEB, MPF(F)
- ***Capability*** sets
  - ESF/MEB
    - MPF(F), Seabase connectors
  - Naval Logistics
- ***Technology*** Solutions
  - Seabased assets, C2, ISR, Fires, Logistics

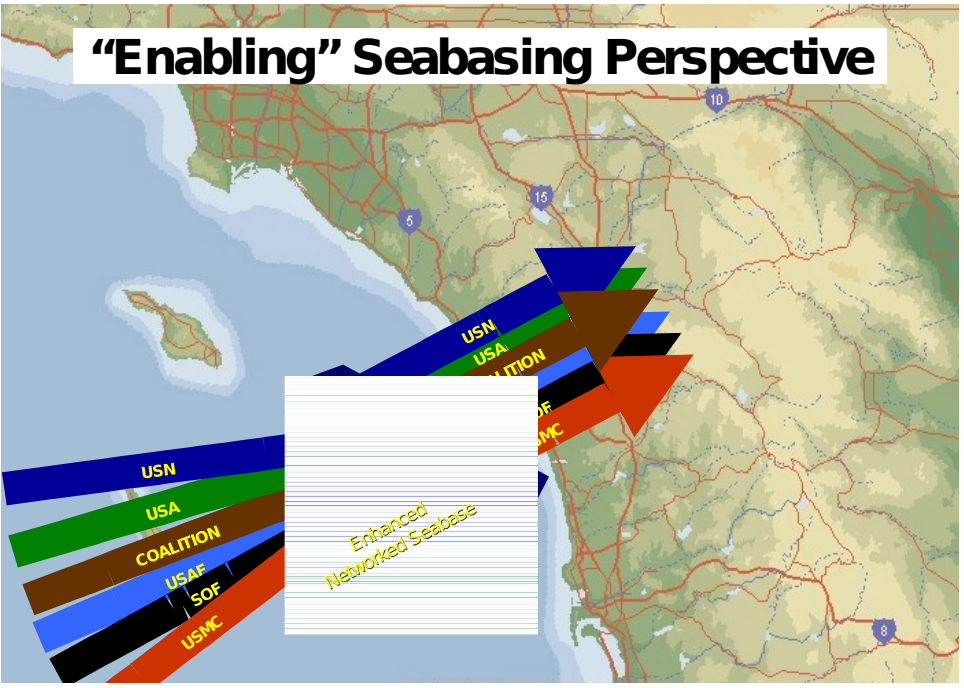
Navy and Marine Corps Collaborative Effort

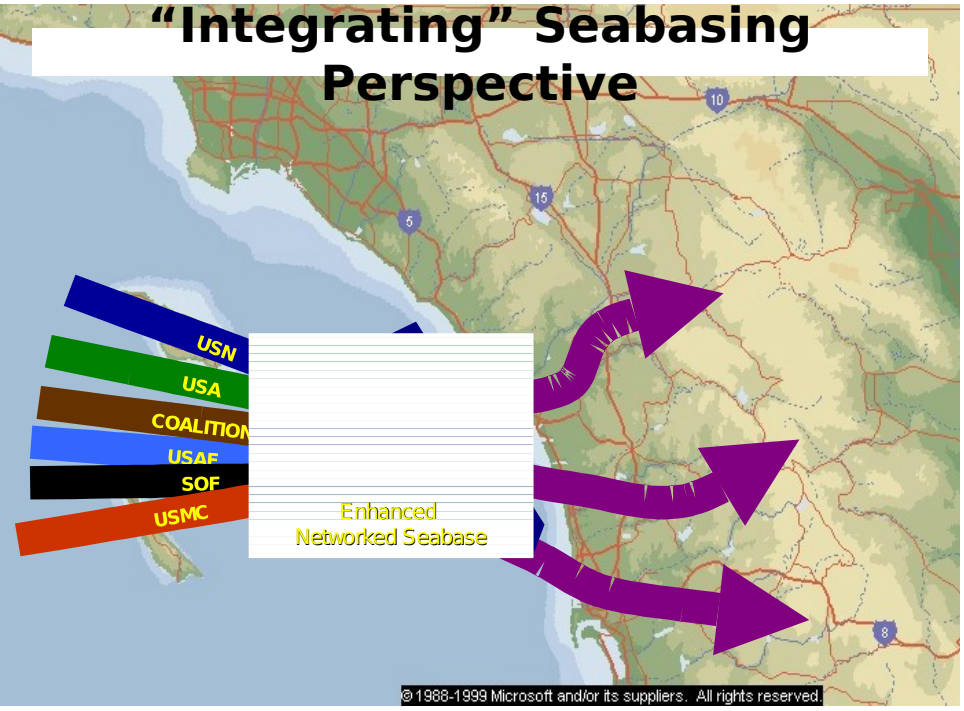
Integrated Naval / Joint Effort



Spectrum of MEB Options


2015 MEB
JAGTF
EMW / OMFTS
ESG / ENHANCED NETWORKED SEABASING CONCEPT
Wide Span of Intermediate Options
MAGTF Issues
•MAGTF Organizational Concepts
•ESG, MEB, MEF purpose/relationship
•MEB capability sets
•MEB as a JFMCC
Naval Issues
•Role and organization of the JFMCC
•JFMCC as Joint Seabase "Provider"
•MEB /JFMCC CE Integration
Joint Integration Issues
•Linkage to RCC, SJFHQ, or other Functional Component HQ
•Other Service and SOF Integration
•MAGTF as JFLCC or JSOTF Asset
INTEGRATED JOINT FORCE MODULES
"JOINT AT THE LOWEST LEVEL"





JFMCC / MEB

- **"Blue/Green" staff w/Joint representation**
- MEB capabilities sets are the core
  - *Stand alone MEB capability*
  - *Building block for MEF*
  - *Forward capability to build a JTF*
- **Selected MEB capabilities forward while other capabilities "surge"**
- **MEB operates from a Seabase; Selected Service and Coalition capabilities are enabled by the Seabase**

JAGTF

- **Joint Assured Access / Early Entry Force**
- MEB is the JTF
- Linkage to SJFHQ
- **Service and Coalition capabilities are integrated into Joint capabilities by the Seabase**

Questions

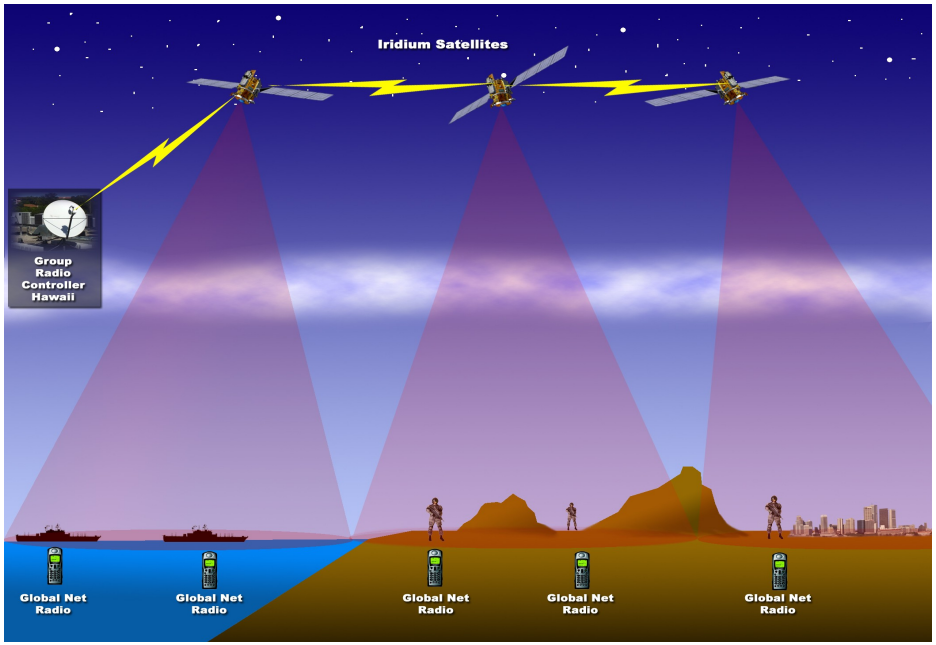
Back up

An Option……

I MEF	III MEF	II MEF
• Forces / Technology Focus • Late Oct 04 • Considers summer 04 staff turnover	• JFMCC Focus • Ongoing • Results incorporated in I MEF & II MEF efforts	• CPX / M&S Focus • Oct 04 JTF Ex – NWDC & JFCOM – VIP Day • Builds on MSTP train-up

Expeditionary Tactical Communications System (ETCS)

Purpose: Provide an On the Move (OTM), Over the Horizon (OTH) Expeditionary Tactical Communications System for experimentation and use as a surrogate



Product:

- Modification to commercial IRIDIUM low earth orbit satellite system to provide push-to-talk netted (one to many) voice/data capability
- Increased bandwidth via Multi-Channel Unit
- OTM and OTH communications between seabased C2 nodes and elements ashore to the dismounted company and reconnaissance team
- Integrated into C2PC/AFATDS/CLC2S on ship, vehicle and helicopter platforms
- Define lo

Focused on a Critical Capability Gap

Friendly Force Tracking

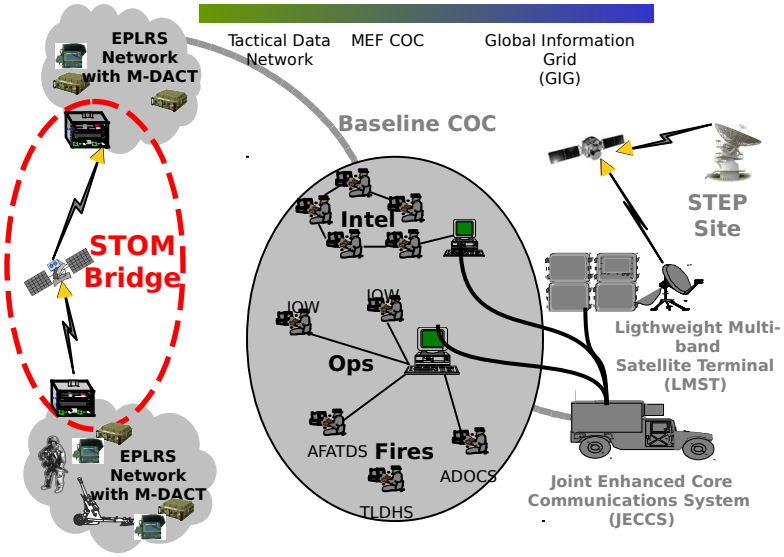
Purpose: Provide surrogate devices to input position location information (PLI) into the common tactical picture

Product:

- Company and above
  - MDACT surrogate

- Platoon
  - Modified IRIDIUM 9505 phone

Ship-to-Objective Maneuver (STOM) Bridge



Capability

STOM Bridge provides Beyond Line-of-sight (BLOS), Over-The-Horizon (OTH) connectivity between geographically separated EPLRS network communities.

Requirement

Projected AAO = 150 (TBD)

Issue

EPLRS uses UHF Line-of-Sight (LOS) relays to transmit tactical data. During OIF, network outages occurred due to terrain masking or units dispersing beyond the radio's intended range.

Resolution

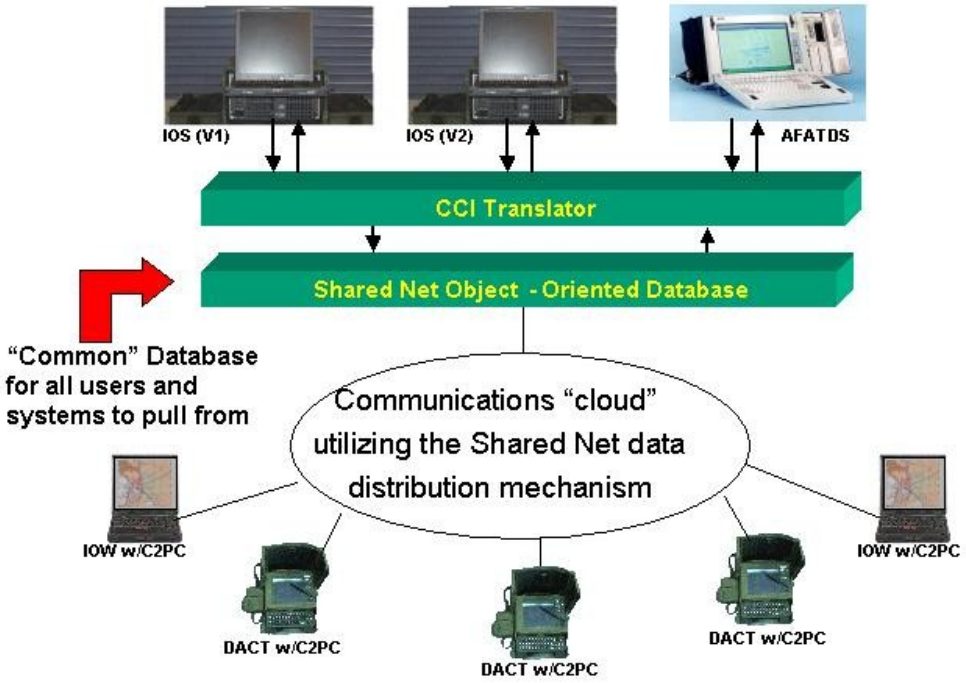
Develop Ship-to-Objective Maneuver (STOM) Bridge to provide connectivity between geographically isolated EPLRS network communities.

Schedule

FISCAL YEARS	FY01	FY02	FY03	FY04	FY05	FY06
System Definition						
Establish IPT						
Phase 1 Basic Construct						
Modeling and Simulation						
Phase II						
Phase III Prototype						

Command and Control Integration

Purpose: Develop an advanced, shared, object-oriented database and multi-system translator that will synchronize data across currently fielded command and control systems



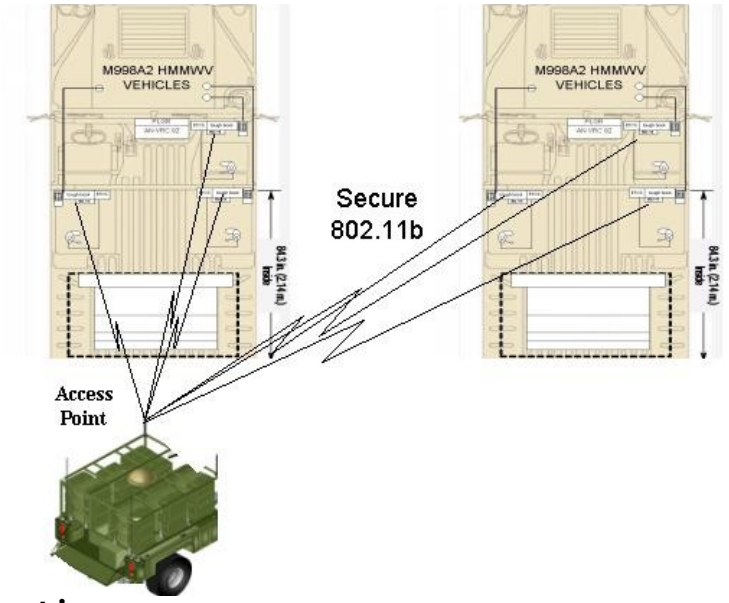
Product :

- Software infusion that enables common tactical picture via current MAGTF C2 systems
- Enhance the commander's ability to make decisions and manage his battlespace
- Transparent to the user
- Enable users to tailor their information requirements and provide a *relevant* CTP
- Enhance OTH communications by reducing bandwidth requirements through improved information management

Brings Common Tactical Picture to the Regiment and Below

On-The-Move Digital COC

Partnership with UOC



Purpose: Provide an OTM/OTH Digital COC to the infantry battalion commander for employment during seabased maneuver and operations ashore

Product:

- Enhanced "UOC" for OTM/OTH employment
- Provide both voice and data communications
  - Integrates OTH Expeditionary Tactical Communications System (ETCS)
  - C2PC/AFATDS/CLC2S integrated via wireless LAN
- Incorporates Spray Cool Technology for rugged compact server durability
- Related issue: ETCS and MDACT integrated into CH-53 to provide voice/data communications during vertical employment

OTM/OTH COC enables OTM/OTH Maneuver

Secure Mobile Networks
Secure Wireless Local Area Network

OBJECTIVE:

- Provide an integrated Type 1secure environment to enable transition to various Navy and Marine Corps Programs.
- Provide technical data and characterization of network performance in tactical environments.
- Provide transition partners with technical design guidance, CONOPs, & Joint TTPs
- Support requisite documentation for insertion of technology into appropriate architectures to ensure rapid fielding to operational forces
- Support the services' development of infrastructure to support Secure Wireless LAN capabilities.

PAYOFF

- CP On-the-Move Connectivity
- Seamless Mobility for Roaming Subscribers (Afloat & Ashore)
- DoD Secure Wireless Design Guidelines
- Decreased Network Setup Time/Reduced Logistics Footprint

TECHNICAL APPROACH:

- Integration effort designed to meet POR requirements
- Close coordination with transition partner PORs
- Integration conducted in MCTSSA SIE & USS CORONADO
- SWLAN Facility selected as DoD secure wireless LAN Beta Test Site.
- Joint Wireless Working Group & DoD Wireless Policy Working Group
- Transition initiatives commenced during ELB ACTD Demonstration Phase. Transition of technology will be completed as LC FNC C2 Enabling Capability

OVERALL SCHEDULE:

TASKS	FY02	FY03	FY04	FY05
SECURE WIRELESS COMPONENT TO 73TH REG				
HARRIS BETA TEST SITE				
BASIC INTEGRATION				
FEASIBILITY ASSESSMENT				
FIELDING COMPONENT				
TRANSITION(S) TO PMs				

TRANSITION: MARCORSYSCOM, SPAWARSYSCOM

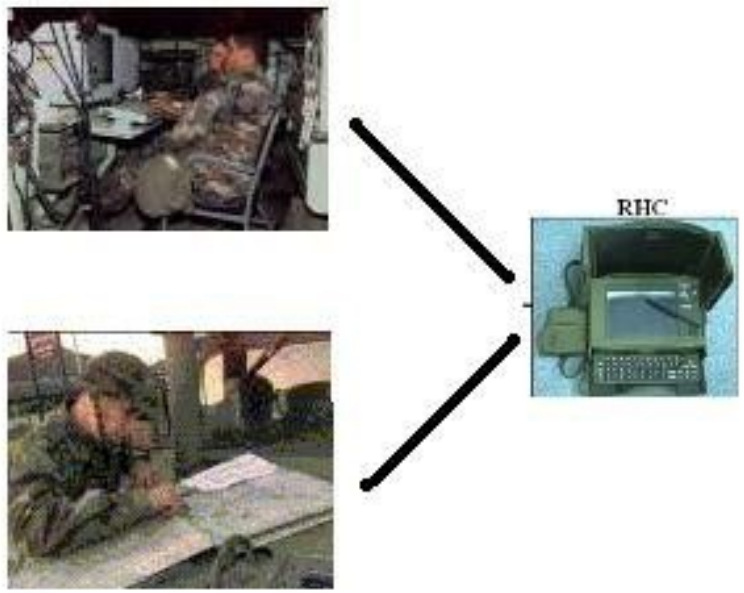
PERFORMERS: MCTSSA, Potomac Institute

Digital Fires Coordination Device

Purpose: Develop and assess experimental fires command and control capabilities that support seabased operations

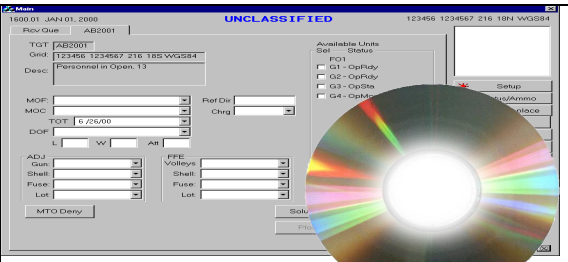
Product:

- MDACT/DDACT based computer using THS(X) software derivative
- Provides fire support coordinator visibility and control of Fire Missions
- Lightweight, on the move capable
- Reduce weight/complexity/clutter of legacy systems



Focused on Enhancing Expeditionary Fires Mobility and C2

Universal Fire Control System (Dismounted)



Mortar Fire Control System

PLGR

Weapon Pointing Device

Mortar Ballistic Computer

Gunners Display

SINCGARS/SW

OBJECTIVE:

- The objective is the integration of an automated aiming and pointing capability to improve the timeliness and accuracy of first round down range over the current iron and glass survey methodology.
- Provides digital integration with the Advanced Field Artillery Tactical Data System (AFTDS) at the gun system level.

PAYOFF

The addition of the automated APS shall provide:

- Reduction of "human error" by employing automated weapon aiming vice manual aiming.
- Enhanced first round "fire for effect" with excellent target location
- Decrease time and increase accuracy for first round down range.

TECHNICAL APPROACH:

- Develop model to simulate shock and vibration characteristics.
- Verify model with dynamic, instrumented testing.
- Model mounting bracket and run simulation.
- Fabricate mount and perform live tests with load simulation.
- Perform live tests with APS.
- Assess operation in August demonstration and Sea Viking 04.

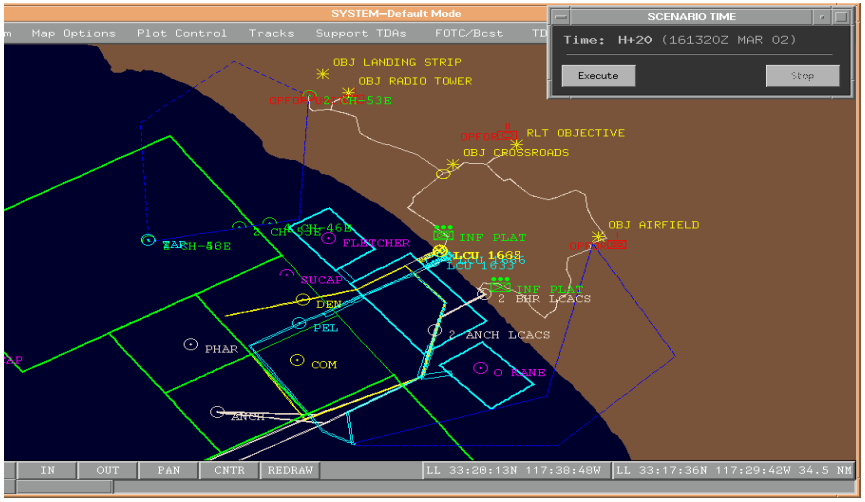
PERFORMERS: PM Mortars, Picatinny;

SCHEDULE:

TASKS	FY03	FY04	FY05	FY06
Complete System Design				
Power Design				
Fabricate PD Mount				
System Integration				
Live Fire System Demo (Aug 03)				
Technical & Operational Report				
Sea Viking 04				

TRANSITION: MARCORSYSCOM, Product Group 14, PM Armor and Fire Support Systems,

Advanced Expeditionary Maneuver Warfare System (AEMWS) [formerly EDSS]



OBJECTIVE:

Develop, evolve, and demonstrate technology solutions that provide tools for the Commander, Amphibious Task Force (CATF), Commander, Landing Force (CLF), and their staffs that support the conduct of the military decision-making process in the planning, evaluation, and execution of all phases of Expeditionary Warfare, ranging from traditional large-scale amphibious assaults to rubber boat raids by USMC Force Reconnaissance teams.

PAYOFF

- Reduce planning time and increase speed of command to allow rapid decisions, re-planning, and in-stride assault guidance
- Increased probability of success, minimize fratricide and increase deconfliction

TECHNICAL APPROACH:

- Evolutionary software development within DII COE
  - Build-A-Little, Test-A-Little, Field-A-Little (BALTALFAL)
- Integrate video, GPS, and display technology for Augmented Reality display

PERFORMERS: SAIC, NRL (DC), APL/UW, TSI, Wagner Associates

SCHEDULE:

TASKS	FY02	FY03	FY04	FY05
ARVCOP				
EDSS (DII COE 3.1)				
EDSS (DII COE 4.x)				
GOVT TESTING/DEMO				
TRANSITION TO NAVSEA				

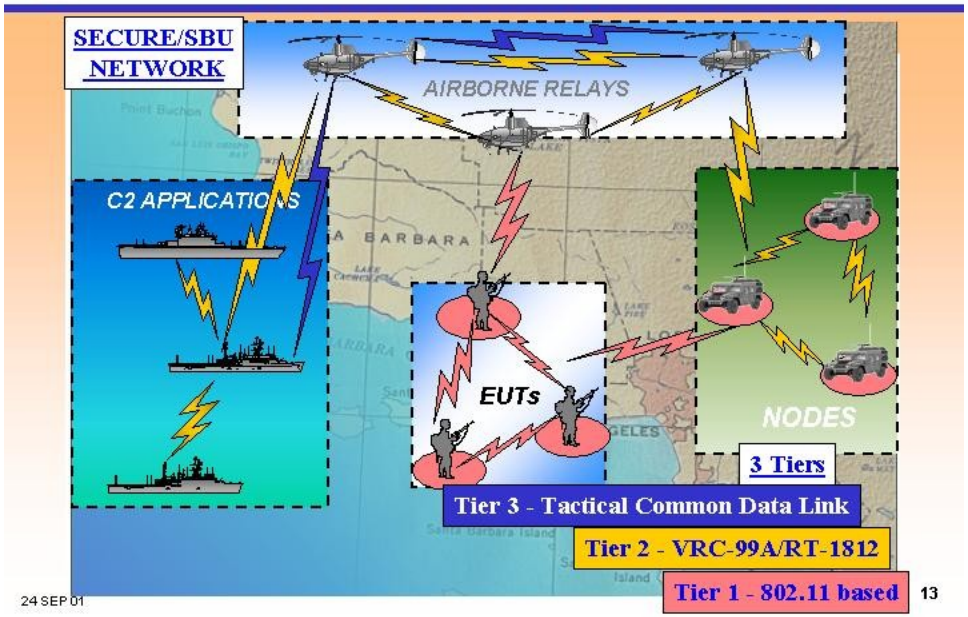
TRANSITION: NAVSEA, SPAWAR

JTF WARNET

Purpose: Provide communications in support of collaborative planning.

Product

- Joint Task Force Wide Area Relay Network (JTF WARNET)
- Installed on ships within the seabase



MISSION

- The Marine Corps Combat Development Command conducts the Sea Viking 04 Experimentation Campaign and provides information and comparative analysis in order to support decisions and strategies for 2015 transformational goals.

- Examine Sea Basing & OMFTS within the joint context
- Provide a foundation for Naval Transformation
- Main Effort of Marine Corps Service Experimentation

SV 04 Milestones

- **Provide Initial Baseline ConOps: 8 Sept (C2 Capability Team Lead)**
- **Initial M&S run of Baseline Conops: NLT 26 Sept**
- **Provide Initial Stand Alone MEB ConOps: 8 Oct 03 (C2 Capability Team Lead)**
- **Initial Baseline ConOps experimented w/ in Unified Course (JFCOM/NWDC WG): 6-10 Oct**
- **Initial Stand Alone MEB M&S run: NLT 31 Oct 03**
- **JFMCC Wargame using Stand Alone MEB: 12-21 Nov**
- **Capability Teams develop capability options for Baseline ConOps: 25 Nov**
- **Provide Initial JAGTF ConOps: 1 Dec 03 (C2 Capability Team Lead)**
- **Follow on M&S runs of Baseline Conops: 1-19 Dec 03**
- **Provide Additional ConOps for MEB Building Block for MEF / MEB Forward capability to build a JTF : 15 Dec**

SV 04 Milestones

- **Integrated Wargame of Baseline Conops: Jan 04**
- **JAGTF M&S run: NLT 31 Jan 04**
- **Capability Teams refine capability options for Stand Alone MEB, MEB Building Block for MEF & MEB Forward capability to build a JTF ConOps: 30 Jan**
- **JAGTF Table Top Seminar: Feb 04**
- **Follow on M&S runs for Stand Alone MEB, MEB Building Block for MEF & MEB Forward capability to build a JTF ConOps : NLT 27 Feb**
- **II MEF MEFEX: Feb 04 Training Event**
- **Unified Quest (JFCOM/Army): 30 Apr-7 May (Probable CONOPS: MEB Forward capability to build a JTF)**
- **Integrated Wargame for Stand Alone MEB, MEB Building Block for MEF & MEB Forward capability to build a JTF ConOps: May/Jun 04**
- **JTFEX 04: Jun 04 Training Event**
- **AWE CPX: 20 Sept – 1 Oct (CONOPS TBD)**
- **AWE Field: 25 Oct – 3 Nov**

Scheduled Integrated Naval Events

- **Sep 03** Proposed Planning Conf
- **Oct 03** **Unified Course 03**
  Wargame (JFCOM/Navy)
  ETCS LTA 1
  Proposed Planning Conf
- **Nov 03** **JFMCC Wargame (JFCOM/Navy)**
  ENS/ESG WS 1
- **Dec 03** ISR LOE
  Ship & Aircraft Installation
  Proposed Planning Conf
- **Jan 04** ETCS LTA 2
  OTM COC LTA
  ENS/ESG WG 1
  Fires LOE
  Proposed Planning Conf
- **Feb 04** Proposed Planning Conf
- **Mar 04** OTM COC LTA 2
  ETCS LTA 3
- **Apr 04** Logistics LOE
  ENS/ESG WS 3
  Proposed Planning Conf
- **May 04** OTM COC LOE
  Trident Warrior LOE
- **Jun 04** Proposed Planning Conf
- **Jul 04** Seabased Asset LOE
  Proposed Planning Conf
- **Oct 04** SV04 AWE/Trident Warrior 04/FBE-L (CPX)
- **Nov 04** SV04 AWE/Trident Warrior 04/FBE-L (Field)